THE ASTROPHYSICAL JOURNAL LETTERS

CONTENTS OF VOLUME 549, PART 2

2001 MARCH 1, NUMBER 1

	Page
FIRST INTRINSIC ANISOTROPY OBSERVATIONS WITH THE COSMIC BACKGROUND IMAGER S. Padin, J. K. Cartwright, B. S. Mason, T. J. Pearson, A. C. S. Readhead, M. C. Shepherd, J. Sievers, P. S. Udomprasert, W. L. Holzapfel, S. T. Myers, J. E. Carlstrom, E. M. Leitch, M. Joy, L. Bronfman, and J. May	LI
MULTICOLOR OBSERVATIONS OF THE GRB 000926 AFTERGLOW P. A. Price, F. A. Harrison, T. J. Galama, D. E. Reichart, T. S. Axelrod, E. Berger, J. S. Bloom, J. Busche, T. Cline, A. Diercks, S. G. Djorgovski, D. A. Frail, A. Gal-Yam, J. Halpern, J. A. Holtzman, M. Hunt, K. Hurley, B. Jacoby, R. Kimble, S. R. Kulkarni, N. Mirabal, G. Morrison, E. Ofek, O. Pevunova, R. Sari, B. P. Schmidt, D. Turnshek, and S. Yost	L7
THE Ly α FOREST FLUX DISTRIBUTION AT $z\sim5.2$ AND THE EVOLUTION OF THE IONIZING BACKGROUND Patrick McDonald and Jordi Miralda-Escudé	L11
CAN THE GEOMETRIC TEST PROBE THE COSMIC EQUATION OF STATE? Kazuhiro Yamamoto and Hiroaki Nishioka	L15
CONSTRAINTS ON THE WARM DARK MATTER MODEL FROM GRAVITATIONAL LENSING Yan-Jie Xue and Xiang-Ping Wu	L21
LENSING CONSTRAINTS ON THE CORES OF MASSIVE DARK MATTER HALOS Charles R. Keeton and Piero Madau	L25
SPATIALLY RESOLVED MILLIMETER SPECTROSCOPY OF THE GRAVITATIONAL LENS PKS 1830-211 Jonathan J. Swift, William J. Welch, and Brenda L. Frye	L29
CONSTRAINTS ON THE INNER MASS PROFILES OF LENSING GALAXIES FROM MISSING ODD IMAGES David Rusin and Chung-Pei Ma	L33
SIGNATURES IN A GIANT RADIO GALAXY OF A COSMOLOGICAL SHOCK WAVE AT INTERSECTING FILAMENTS OF GALAXIES Torsten A. Ensslin, Patrick Simon, Peter L. Biermann, Ulrich Klein, Sven Kohle, Philipp P. Kronberg, and Karl-Heinz Mack	L39
PROPERTIES OF THE CHANDRA SOURCES IN M81 Allyn F. Tennant, Kinwah Wu, Kajal K. Ghosh, Jeffery J. Kolodziejczak, and Douglas A. Swartz	L43
CHANDRA ESTIMATE OF THE MAGNETIC FIELD STRENGTH NEAR THE COLD FRONT IN A3667 A. Vikhlinin, M. Markevitch, and S. S. Murray	L47
DETECTION OF NUCLEAR X-RAY SOURCES IN NEARBY GALAXIES WITH CHANDRA Luis C. Ho, Eric D. Feigelson, Leisa K. Townsley, Rita M. Sambruna, Gordon P. Garmire, W. N. Brandt, Alexei V. Filippenko, Richard E. Griffiths, Andrew F. Ptak, and Wallace L. W. Sargent	L51
MEASURING THE BRIGHTNESS TEMPERATURE DISTRIBUTION OF EXTRAGALACTIC RADIO SOURCES WITH SPACE VLBI S. J. Tingay, R. A. Preston, M. L. Lister, B. G. Piner, D. W. Murphy, D. L. Jones, D. L. Meier, T. J. Pearson, A. C. S. Readhead, H. Hirabayashi, Y. Murata, H. Kobayashi, and M. Inoue	L55
INFRARED LINE EMISSION IN THE INTERACTING REGION OF ARP 244 (THE ANTENNAE): COLLIDING MOLECULAR CLOUD COMPLEXES? M. C. Liang, T. R. Geballe, K. Y. Lo, and DC. Kim	L59
A TIDAL EXTENSION IN THE URSA MINOR DWARF SPHEROIDAL GALAXY D. Martínez-Delgado, J. Alonso-García, A. Aparicio, and M. A. Gómez-Flechoso	L63
COMMENT ON "TeV CERENKOV EVENTS AS BOSE-EINSTEIN GAMMA CONDENSATIONS" Amir Levinson	L67
DISCOVERY OF NEARLY COHERENT OSCILLATIONS WITH A FREQUENCY OF ~567 Hz DURING TYPE I X-RAY BURSTS OF THE X-RAY TRANSIENT AND ECLIPSING BINARY X1658-298 Rudy Wijnands, Tod Strohmayer, and Lucía M. Franco	L71
SLIM-DISK MODEL FOR ULTRALUMINOUS X-RAY SOURCES Ken-ya Watarai, Tsunefumi Mizuno, and Shin Mineshige	L77
SPECTROSCOPY OF IY URSAE MAJORIS DURING SUPEROUTBURST Xiaoan Wu, Zongyun Li, Weihong Gao, and Kam-Ching Leung	L81
DISCOVERY OF A 270 HERTZ X-RAY BURST OSCILLATION IN THE X-RAY DIPPER 4U 1916-053 Dungan K. Galloway, Deepto Chakrabarty, Michael P. Muno, and Paylin Sayoy	L85

AN EXTRAORDINARY ACCRETION EVENT DETECTED ON DF TAURI J. Z. Li, W. H. Ip, W. P. Chen, J. Y. Hu, and J. Y. Wei	L89
SELF-SIMILAR GRAVITATIONAL COLLAPSE IN STELLAR DYNAMICS Carlo Lancellotti and Michael Kiessling	L93
FAINT SCATTERING AROUND PULSARS: PROBING THE INTERSTELLAR MEDIUM ON SOLAR SYSTEM SIZE SCALES D. R. Stinebring, M. A. McLaughlin, J. M. Cordes, K. M. Becker, J. E. Espinoza Goodman, M. A. Kramer, J. L. Sheckard, and C. T. Smith	L97
HIGH TIME RESOLUTION OBSERVATIONS OF THE VELA PULSAR Simon Johnston, Willem van Straten, Michael Kramer, and Matthew Bailes	L101
EVIDENCE FOR SOLAR-LIKE OSCILLATIONS IN β HYDRI Timothy R. Bedding, R. Paul Butler, Hans Kjeldsen, Ivan K. Baldry, Simon J. O'Toole, Christopher G. Tinney, Geoffrey W. Marcy, Francesco Kienzle, and Fabien Carrier	L105
A NEW VERY COOL WHITE DWARF DISCOVERED BY THE SLOAN DIGITAL SKY SURVEY Hugh C. Harris, Brad M. S. Hansen, James Liebert, Daniel E. Vanden Berk, Scott F. Anderson, G. R. Knapp, Xiaohui Fan, Bruce Margon, Jeffrey A. Munn, R. C. Nichol, Jeffrey R. Pier, Donald P. Schneider, J. Allyn Smith, D. E. Winget, Donald G. York, John E. Anderson, Jr., J. Brinkmann, Scott Burles, Bing Chen, A. J. Connolly, István Csabai, Joshua A. Frieman, James E. Gunn, G. S. Hennessy, Robert B. Hindsley, Željko Ivezić, Stephen Kent, D. Q. Lamb, Robert H. Lupton, Heidi Jo Newberg, David J. Schlegel, Stephen Smee, Michael A. Strauss, Anirudda R. Thakar, Alan Uomoto, and Brian Yanny	L109
IRREGULAR MAGNETIC FIELDS IN INTERSTELLAR CLOUDS AND THE LINEAR POLARIZATION OF STARLIGHT Dmitri S. Wiebe and William D. Watson	L115
THEORETICAL PROFILE SHAPES FOR OPTICALLY THIN X-RAY EMISSION LINES FROM SPHERICAL STELLAR WINDS $R.\ Ignace$	L119
DISCOVERY OF TWO NEW HCN MASER LINES IN FIVE CARBON STARS John H. Bieging	L125
DIFFERENCES IN THE SUN'S RADIATIVE OUTPUT IN CYCLES 22 AND 23 Giuliana de Toma, Oran R. White, Gary A. Chapman, Stephen R. Walton, Dora G. Preminger, Angela M. Cookson, and Karen L. Harvey	L131
EQUIVALENCE BETWEEN DUVALL'S LAW AND THE TIME-DISTANCE CURVE S. D'Silva	L135
COLD, SUPERSONIC EVERSHED DOWNFLOWS IN A SUNSPOT Jose Carlos del Toro Iniesta, Luis R. Bellot Rubio, and Manuel Collados	L139
SHOCK FORMATION OF SLOW MAGNETOSONIC WAVES IN CORONAL PLUMES Manfred Cuntz and Steven T. Suess	L143
X-RAY VELOCIMETRY OF SOLAR WIND ION IMPACT ON COMETS P. Beiersdorfer, C. M. Lisse, R. E. Olson, G. V. Brown, and H. Chen	L147
INSTRUCTIONS TO AUTHORS OF LETTERS, AND ADDITIONAL USEFUL INFORMATION	Inside Back Cover
INSTRUCTIONS FOR ELECTRONIC MANUSCRIPT SUBMISSION	Back Cover
2001 MARCH 10, NUMBER 2	

CONTENTS

	Page
AN IONIZING ULTRAVIOLET BACKGROUND DOMINATED BY MASSIVE STARS Martin G. Haehnelt, Piero Madau, Rolf Kudritzki, and Francesco Haardt	L151
LBQS 0103-2753: A 0".3 BINARY QUASAR V. Junkkarinen, G. A. Shields, E. A. Beaver, E. M. Burbidge, R. D. Cohen, F. Hamann, and R. W. Lyons	L155
CHANDRA OBSERVATIONS OF THE X-RAY JET OF 3C 273 Rita M. Sambruna, C. Megan Urry, F. Tavecchio, L. Maraschi, R. Scarpa, G. Chartas, and T. Muxlow	L161
STRUCTURE OF THE X-RAY EMISSION FROM THE JET OF 3C 273 H. L. Marshall, D. E. Harris, J. P. Grimes, J. J. Drake, A. Fruscione, M. Juda, R. P. Kraft, S. Mathur, S. S. Murray, P. M. Ogle, D. O. Pease, D. A. Schwartz, A. L. Siemiginowska, S. D. Vrtilek, and B. J. Wargelin	L167
ARE CENTAURUS A AND M87 TeV GAMMA-RAY SOURCES? J. M. Bai and Myung Gyoon Lee	L173

CONTENTS

SHOCKS AND SONIC BOOMS IN THE INTRACLUSTER MEDIUM: X-RAY SHELLS AND RADIO GALAXY ACTIVITY Christopher S. Reynolds, Sebastian Heinz, and Mitchell C. Begelman	L179
JET STABILITY AND THE GENERATION OF SUPERLUMINAL AND STATIONARY COMPONENTS Iván Agudo, José-Luis Gómez, José-María Martí, José-María Ibáñez, Alan P. Marscher, Antonio Alberdi, Miguel-Angel Aloy, and Philip E. Hardee	L183
IS THE FAST EVOLUTION SCENARIO FOR VIRIALIZED COMPACT GROUPS REALLY COMPELLING? THE ROLE OF A DARK MASSIVE GROUP HALO M. A. Gómez-Flechoso and R. Domínguez-Tenreiro	L187
CO DETECTIONS OF EDGE-ON LOW SURFACE BRIGHTNESS GALAXIES L. D. Matthews and Yu Gao	L191
WHY ARE THERE DWARF SPHEROIDAL GALAXIES? Renyue Cen	L195
TIDAL STREAMS IN THE GALACTIC HALO: EVIDENCE FOR THE SAGITTARIUS NORTHERN STREAM OR TRACES OF A NEW NEARBY DWARF GALAXY David Martínez-Delgado, Antonio Aparicio, M. Ángeles Gómez-Flechoso, and Ricardo Carrera	L199
COLD H ₂ O AND CO ICE AND GAS TOWARD THE GALACTIC CENTER Andrea Moneti, José Cernicharo, and Juan Ramón Pardo	L203
HIGH COLUMN DENSITIES AND LOW EXTINCTIONS OF GAMMA-RAY BURSTS: EVIDENCE FOR HYPERNOVAE AND DUST DESTRUCTION Titus J. Galama and Ralph A. M. J. Wijers	L209
DETECTION OF A LIGHT ECHO FROM SN 1998bu E. Cappellaro, F. Patat, P. A. Mazzali, S. Benetti, J. I. Danziger, A. Pastorello, L. Rizzi, M. Salvo, and M. Turatto	L215
GRAVITATIONAL SETTLING OF ²² Ne IN LIQUID WHITE DWARF INTERIORS Lars Bildsten and David M. Hall	L219
LARGE X-RAY FLARES FROM LMC X-4: DISCOVERY OF MILLIHERTZ QUASI-PERIODIC OSCILLATIONS AND QUASI-PERIODIC OSCILLATION—MODULATED PULSATIONS Dae-Sik Moon and Stephen S. Eikenberry	L225
A COMPTON UPSCATTERING MODEL FOR SOFT LAGS IN THE LOWER KILOHERTZ QUASI-PERIODIC OSCILLATION IN 4U 1608–52 Hyong C. Lee, R. Misra, and Ronald E. Taam	L229
THE TW HYDRAE ASSOCIATION: DISCOVERY OF T TAURI STAR MEMBERS NEAR HR 4796 B. Zuckerman, R. A. Webb, M. Schwartz, and E. E. Becklin	L233
EVIDENCE FOR A VERY YOUNG AGE OF F STARS WITH EXTRASOLAR PLANETS A. A. Suchkov and A. B. Schultz	L237
THE EDGE OF THE SOLAR SYSTEM R. L. Allen, G. M. Bernstein, and R. Malhotra	L241
NONTHERMAL VELOCITY EVOLUTION IN THE PRECURSOR PHASE OF A SOLAR FLARE L. K. Harra, S. A. Matthews, and J. L. Culhane	L245
LARGE DOPPLER SHIFTS IN X-RAY PLASMA: AN EXPLOSIVE START TO CORONAL MASS EJECTION D. E. Innes, W. Curdt, R. Schwenn, S. Solanki, G. Stenborg, and D. E. McKenzie	L249
CONNECTING THE SUN AND THE SOLAR WIND: COMPARISON OF THE LATITUDINAL PROFILES OF CORONAL AND ULYSSES MEASUREMENTS OF THE FAST WIND Shadia Rifai Habbal and Richard Woo	L253
COMPARISON OF EMPIRICAL MODELS FOR POLAR AND EQUATORIAL CORONAL HOLES M. P. Miralles, S. R. Cranmer, A. V. Panasyuk, M. Romoli, and J. L. Kohl	L257
HEMISPHERIC HELICITY TREND FOR SOLAR CYCLE 23 Alexei A. Pevtsov, Richard C. Canfield, and Sergei M. Latushko	L261
UNIFIED ELECTRONIC RECOMBINATION OF Ne-LIKE Fe xvii: IMPLICATIONS FOR MODELING X-RAY PLASMAS Anil K. Pradhan, Sultana N. Nahar, and Hong Lin Zhang	L265
INSTRUCTIONS TO AUTHORS OF LETTERS, AND ADDITIONAL USEFUL INFORMATION	Inside Back Cover
INSTRUCTIONS FOR ELECTRONIC MANUSCRIPT SUBMISSION	Back Cove